Mating and First-season Births in Interstate Transplanted River Otters, *Lutra canadensis* (Carnivora: Mustelidae)

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ABSTRACT.— River otters were transplanted from North Carolina and Maryland into the West Fork River, W. Va., during February and April 1987. Birth of young and mating by the released otters occurred within 2 months of release. This represents the only known occurrence of birth during the same year following transplanting.

Several states have transplanted river otters (*Lutra canadensis*) (Schreber) in recent years in an attempt to establish or reestablish breeding populations. Birth of young during the same year otters were released was not documented in any of those states. Releases in Missouri resulted in reproduction during the second post-release reproductive period (Erickson and McCullough 1987). Timing of confinement in Louisiana, the source of the otters, and of subsequent release in Missouri appeared to be the cause of that reproductive delay (Erickson and McCullough 1987). Female otters transplanted by one Louisiana supplier were usually held until after parturition (Serfass and Rymon 1985). In Tennessee, no reproduction was documented during the first (17-month) post-release period of radio-tagged animals into the Obed River system (Griess and Anderson 1987). One of 11 females transplanted to Pine Creek, northcentral Pennsylvania, and thought to be pregnant when released in August, reportedly remained near a den the next spring; area residents indicated a family of otters was present in that stretch of river that year (Serfass and Rymon 1985). Pollard (1984) in Oklahoma also did not indicate any first-year post-release reproduction.

In 1986, a program for reintroduction of river otters into northcentral West Virginia was initiated. The first release of four radio-tagged otters (three males and one female) on the West Fork River was on 5

February 1987; the animals had been trapped in North Carolina coastal waters in January 1987. We first observed an otter pup with the female (designated F10) at 0636 hours on 21 May 1987, 105 days after her release. At 1712 hours on 23 May 1987, we confirmed that two pups were with the female. Young otters typically do not leave the den until they are approximately 2 months old (Toweill and Tabor 1982); therefore, we estimated birth of young as the fourth week after release. That represents the shortest known period between release of a translocated otter and birth of young.

We also observed mating activities among the four radio-tagged otters present on the river system in March 1987. A second female (F97) was released on 17 February 1987, following the death of one of the males that had been released on 5 February. Female F10, when located on the morning of 9 March 1987, was on the bank of the main river channel with a male (M50). A local resident had heard and seen the animals that same morning and described what Liers (1951) termed caterwauling. Approximately 5 hours later, at 1403 hours, the same two otters were observed copulating 1.5 km upstream from what we believed had been the site of mating activity that morning. Copulation was observed for 13 minutes and was in the water. The two animals remained in close proximity to one another for the next 7 days. At 0717 hours on 11 March 1987, they were seen on the main channel river bank, where at 0720 the male mounted the female. The female dragged the male into the water and the two animals remained coupled. At 0739 it appeared they may have separated briefly, but the male remounted almost immediately and they remained coupled in the water until 0800 hours. Male M50 remained within 1.7 km of the female F10 den site until the evening of 16 March 1987, but no other copulations were observed. The copulations had occurred 0.4-1.9 km downstream from the den site where female F10 had earlier given birth to pups.

On 10 March 1987 at 0721 hours, we observed female F97 and male M60 mating in Freemans Creek, the first tributary of the West Fork River downstream of the release site. The duration of this event was not determined. Copulation took place on a log in the creek until the otters fell into the water together. The female was heard caterwauling during the copulation. All copulations for these four otters took place within 6.2 km of the February 1987 release site.

Though we suspected that female F10 had young because of her localized movements with respect to one den site, F97 was less site-specific in her movements, and no young were seen with her. The observed mating dates for F10 suggest a birth date in agreement with backdating from the first observations of her pups, as otters are considered postpartum-estrous animals (Toweill and Tabor 1982).

The occurrence of a confirmed birth during the same year of transplanting is exceptional. Whether or not timing of trapping and translocation to occur 6 to 7 weeks prior to the peak birthing period would result in more such births is speculative, but the method should be tested. It could reduce the 1- to 2-year lag in first-generation production that has been observed in translocation programs. However, delays in reproduction for 1 to 2 years after release should continue to be expected following late-winter/spring release of translocated otters, because individual responses of females to the entire trap-and-transfer procedure will remain variable and will influence reproduction.

LITERATURE CITED

Erickson, D. W., and C. R. McCullough. 1987. Fates of translocated river otter in Missouri. Wildl. Soc. Bull. 15:511-517.

Griess, J. M., and B. Anderson. 1987. Reintroduction of the river otter into the Obed Wild and Scenic River in Tennessee. Tenn. Wildl. Res. Agency, Crossville (unpublished report).

Liers, E. E. 1951. Notes on the river otter (*Lutra canadensis*). J. Mammal. 32:1-9.

Pollard, L. 1984. Return of the river otter. Outdoor Oklahoma 40:2-7.

Serfass, T. L., and L. M. Rymon. 1985. Success of river otter introduced in Pine Creek drainage in northcentral Pennsylvania. Trans. Northeast Sect. Wildl. Soc. Fish Wildl. Conf. 42:138-149.

Toweill, D. E., and J. E. Tabor. 1982. River otter (*Lutra canadensis*). Pages 688-703 *in* Wild Mammals of North America: Biology, Management, and Ecology (J. A. Chapman and G. A. Feldhammer, editors). John Hopkins Univ. Press, Baltimore, Md.

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